

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A digital signal receiver comprising:

a reference signal generator for generating a first reference signal;

a base band transform circuit for converting a first high-frequency signal with digital modulation into a base band signal with using the first reference signal;

a frequency divider to divide a frequency of the first reference signal;

a frequency multiplier wherein an output frequency of the frequency multiplier is a product of a multiplicand value which is the divided frequency of the first reference signal produced by the frequency divider and a multiplier value of the frequency multiplier; and

a digital demodulator to demodulate a signal output from the base band transform circuit with using the signal output from the frequency multiplier as a reference signal,

wherein the first reference signal is generated independent of the signal output of the frequency multiplier, and

wherein the first reference signal divided by the frequency divider is input only to the frequency multiplier.

2. (Original) The digital signal receiver of claim 1, further comprising a frequency converter for receiving a second high-frequency signal modulated by the digital signal and converting a frequency of the second high-frequency signal to generate the first high-frequency signal.

3. (Original) The digital signal receiver of claim 2, wherein the frequency converter converts the second high-frequency signal into the first high-frequency signal with using the first reference signal.

4. (Original) The digital signal receiver of claim 1, wherein the first high-frequency signal is modulated by the digital signal by Orthogonal Frequency Division Multiplexing system, and the digital demodulator comprises an Orthogonal Frequency Division Multiplexing demodulator.

5. (Original) The digital signal receiver of claim 1, wherein the base band transform circuit comprises an orthogonal base band transform circuit operable to

convert the first high-frequency signal into a first base band signal and a second base band signal orthogonal each other and

output the first base band signal and the second base band signal.

6. (Original) The digital signal receiver of claim 5, wherein the orthogonal base band transform circuit includes

a 90°-phase shifter for shifting a phase of the first reference signal by 90 degrees,

a first mixer for mixing the first reference signal with the first high-frequency signal to convert the first high-frequency signal into the first base band signal, and

a second mixer for mixing the second reference signal with the first high-frequency signal to convert the first high-frequency signal into the second base band signal.

7. (Previously Presented) The digital signal receiver of claim 2, wherein the frequency divider and at least one of the base band transform circuit and the frequency converter are formed in a bi-CMOS device.

8. (Previously Presented) The digital signal receiver of claim 1, wherein the digital demodulator and the frequency multiplier are formed in a CMOS device.

9. (Original) The digital signal receiver of claim 1, further comprising a low-pass filter for receiving a signal output from the frequency divider and outputting a signal to the frequency multiplier.

10. (Previously Presented) The digital signal receiver of claim 7, wherein the digital demodulator and the frequency multiplier are formed in a CMOS device.

11. (Previously Presented) The digital signal receiver of claim 8, the frequency divider and the base band transform circuit are formed in a bi-CMOS device.